

April 20, 2017

City of Portsmouth Planning Board

GREEN BUILDING STATEMENT

Re: Proposed Office building at Borthwick Forest, Borthwick Road

The core and shell of the proposed new office building at Borthwick Forest is being designed to meet or exceed current Energy Code requirements. A U.S. Department of Energy "COMcheck" will be submitted with the building permit application.

Currently the State of New Hampshire has adopted the 2009 International Energy Code with amendments, and the design of the new building will be built to current best practices and will exceed these requirements when appropriate.

- Foundation system to be cast in place concrete with continuous rigid insulation installed to depths required by the energy code. Continuous insulation to be provided under the concrete slab on grade for 2 feet along the exterior wall.
- Exterior walls to have continuous insulation outside the framing system and the continuous air barrier, to provide better overall thermal performance. Exterior skin of building to be a combination of masonry and metal panel screen walls that provide an air space in front of the insulation to allow for moisture management.
- Exterior Windows to have thermally broken aluminum framing with insulated, high-performance glazing to provide enhanced thermal performance and solar control.
- Roofing system: Light colored membrane roofing system over continuous rigid insulation that exceeds the base energy code requirements.
- HVAC systems to consist of high-efficiency, variable volume rooftop units with economizers and variable speed drives. High efficiency condensing boilers with variable frequency pumps for providing heat to hydronic variable air volume boxes at spaces. Digital controls with occupancy sensors and nighttime setbacks. Toilet room exhaust to run through heat exchanger to preheat incoming makeup air.
- Plumbing: All fixtures to be low flow. High efficiency gas fired condensing boiler for domestic hot water.
- Lighting: Exterior lighting to be LED cutoff fixtures for energy efficiency and to minimize light pollution. All interior lighting to be LED throughout using less than 1 watt / sf and perimeter daylight sensors. Occupancy sensors to be utilized as required by code.
- Landscaping: local species that are drought tolerant to be incorporated into plantings list.

Sincerely,



A. Matthew Wirth
Senior Vice President - Architecture and Engineering